

OIPE

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/851,595

DATE: 05/21/2001  
TIME: 10:17:13

Input Set : A:\seqlist.txt  
Output Set: N:\CRF3\05212001\I851595.raw

3 <110> APPLICANT: Gu, Wei.  
5 <120> TITLE OF INVENTION: NOVEL G-PROTEIN COUPLED RECEPTORS AND USES THEREFOR  
7 <130> FILE REFERENCE: MNI-080CP  
C--> 9 <140> CURRENT APPLICATION NUMBER: US/09/851,595  
C--> 10 <141> CURRENT FILING DATE: 2001-05-08  
12 <150> PRIOR APPLICATION NUMBER: 09/556,588  
13 <151> PRIOR FILING DATE: 2000-05-08  
15 <150> PRIOR APPLICATION NUMBER: 60/132,896  
16 <151> PRIOR FILING DATE: 1999-05-06  
18 <160> NUMBER OF SEQ ID NOS: 12  
20 <170> SOFTWARE: PatentIn Ver. 2.0  
22 <210> SEQ ID NO: 1  
23 <211> LENGTH: 3637  
24 <212> TYPE: DNA  
25 <213> ORGANISM: Mus musculus  
27 <220> FEATURE:  
28 <221> NAME/KEY: CDS  
29 <222> LOCATION: (222)..(3122)  
31 <220> FEATURE:  
32 <221> NAME/KEY: misc\_feature  
33 <222> LOCATION: (3554)  
34 <223> OTHER INFORMATION: n = any nucleotide  
36 <400> SEQUENCE: 1  
37 gtcgacccac gcgtccgcac tcaacaatgc ctgcccctct ctgactgcac cgtcccgcgcg 60  
39 ccgctgccgc cgccgcgcgc aagccaagtc gagcgggggc gttgccacc gacggcacag 120  
41 cccttgggcc cgccggggac caggaggtga gccgcgcgcg cacagctccg tgcgctcgcc 180  
43 cgtctgagcg cccgccaggt gccccgcagc ccgcccgcga g atg cac agc ccg cct 236  
Met His Ser Pro Pro  
44 1 5  
45  
47 ggg ctc ctg gcg ctg tgg ctt tgc gct gtg ctg tgc gca tgc gcg cgc 284  
48 Gly Leu Leu Ala Leu Trp Leu Cys Ala Val Leu Cys Ala Ser Ala Arg  
49 10 15 20  
51 ggg ggc agc gac ccc cag cct ggc ccg ggg cgt ccc gcc tgc ccg gct 332  
52 Gly Gly Ser Asp Pro Gln Pro Gly Pro Gly Arg Pro Ala Cys Pro Ala  
53 25 30 35  
55 ccc tgc cac tgc cag gag gac ggc atc atg ctg tcc gct gac tgc tcc 380  
56 Pro Cys His Cys Gln Glu Asp Gly Ile Met Leu Ser Ala Asp Cys Ser  
57 40 45 50  
59 gag ctc ggg ctc tca gtg gtg cct gcg gac ctg gac ccc ctg acg gct 428  
60 Glu Leu Gly Leu Ser Val Val Pro Ala Asp Leu Asp Pro Leu Thr Ala  
61 55 60 65  
63 tac cta gac ctc agt atg aac aac ctc acg gag ctt cag ccg ggt ctc 476  
64 Tyr Leu Asp Leu Ser Met Asn Asn Leu Thr Glu Leu Gln Pro Gly Leu  
65 70 75 80  
67 ttc cac cac ctg cgc ttc ctg gag gag ctg cgg ctc tca ggg aac cac 524  
68 Phe His His Leu Arg Phe Leu Glu Glu Leu Arg Leu Ser Gly Asn His  
69 90 95 100

ENTERED

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/851,595

DATE: 05/21/2001  
TIME: 10:17:13

Input Set : A:\seqlist.txt  
Output Set: N:\CRF3\05212001\I851595.raw

```

71 ctc tca cac atc ccg gga cag gca ttc tcc ggc ctc cac agc ctc aaa 572
72 Leu Ser His Ile Pro Gly Gln Ala Phe Ser Gly Leu His Ser Leu Lys
73 105 110 115
75 att cta atg ctg cag agc aac cag ctc cgt ggg atc cca gca gag gca 620
76 Ile Leu Met Leu Gln Ser Asn Gln Leu Arg Gly Ile Pro Ala Glu Ala
77 120 125 130
79 cta tgg gag ctg ccc agc ctg cag tcc ctg cgc cta gat gct aat ctc 668
80 Leu Trp Glu Leu Pro Ser Leu Gln Ser Leu Arg Leu Asp Ala Asn Leu
81 135 140 145
83 atc tcc ctg gtc cct gag aga agc ttt gag ggg ctc tcc tcc ctc cgc 716
84 Ile Ser Leu Val Pro Glu Arg Ser Phe Glu Gly Leu Ser Ser Leu Arg
85 150 155 160 165
87 cac ctc tgg ctg gat gac aat gca ctc act gag atc ccc gtc aga gct 764
88 His Leu Trp Leu Asp Asp Asn Ala Leu Thr Glu Ile Pro Val Arg Ala
89 170 175 180
91 ctc aac aac ctt cct gcc cta cag gcc atg acc ttg gct ctc aac cat 812
92 Leu Asn Asn Leu Pro Ala Leu Gln Ala Met Thr Leu Ala Leu Asn His
93 185 190 195
95 atc cgc cac atc cct gac tat gcc ttc cag aac ctc acc agt ctt gtg 860
96 Ile Arg His Ile Pro Asp Tyr Ala Phe Gln Asn Leu Thr Ser Leu Val
97 200 205 210
99 gtg ctg cat cta cat aac aac cgc atc cag cat gtg ggg acc cac agc 908
100 Val Leu His Leu His Asn Asn Arg Ile Gln His Val Gly Thr His Ser
101 215 220 225
103 ttc gag ggg ctg cac aat ctg gag aca cta gac ctg aac tat aat gag 956
104 Phe Glu Gly Leu His Asn Leu Glu Thr Leu Asp Leu Asn Tyr Asn Glu
105 230 235 240 245
107 ctg cag gag ttc ccc ttg gct atc cgg acc ctg ggc agg ctg cag gaa 1004
108 Leu Gln Glu Phe Pro Leu Ala Ile Arg Thr Leu Gly Arg Leu Gln Glu
109 250 255 260
111 ttg ggt ttc cat aac aac aac atc aag gct atc cca gag aaa gcc ttc 1052
112 Leu Gly Phe His Asn Asn Asn Ile Lys Ala Ile Pro Glu Lys Ala Phe
113 265 270 275
115 atg ggc aac cct ctc ctg cag aca ata cat ttt tat gac aac cca atc 1100
116 Met Gly Asn Pro Leu Leu Gln Thr Ile His Phe Tyr Asp Asn Pro Ile
117 280 285 290
119 cag ttt gtg gga agg tca gca ttc cag tac ctg tct aaa ctg cat acg 1148
120 Gln Phe Val Gly Arg Ser Ala Phe Gln Tyr Leu Ser Lys Leu His Thr
121 295 300 305
123 cta tct ttg aat ggt gcc act gat atc caa gag ttc cca gac ctc aaa 1196
124 Leu Ser Leu Asn Gly Ala Thr Asp Ile Gln Glu Phe Pro Asp Leu Lys
125 310 315 320 325
127 ggc acc act agc ctg gag atc ctg acc ctg acc cgt gcg ggc atc aga 1244
128 Gly Thr Thr Ser Leu Glu Ile Leu Thr Leu Thr Arg Ala Gly Ile Arg
129 330 335 340
131 ctg ctc cca ccg gga gtg tgc caa cag ctg cct agg ctc cga atc ctg 1292
132 Leu Leu Pro Pro Gly Val Cys Gln Gln Leu Pro Arg Leu Arg Ile Leu
133 345 350 355
135 gag ctg tct cat aat cag atc gag gag tta ccc agc ctg cac aga tgt 1340

```

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/851,595

DATE: 05/21/2001  
TIME: 10:17:13

Input Set : A:\seqlist.txt  
Output Set: N:\CRF3\05212001\I851595.raw

```

136 Glu Leu Ser His Asn Gln Ile Glu Glu Leu Pro Ser Leu His Arg Cys
137          360          365          370
139 cag aag ctg gag gaa att ggc ctc cga cat aac agg atc aag gaa att 1388
140 Gln Lys Leu Glu Glu Ile Gly Leu Arg His Asn Arg Ile Lys Glu Ile
141          375          380          385
143 ggt gca gat acc ttc agc cag ctg ggc tcc ttg caa gct tta gac ctg 1436
144 Gly Ala Asp Thr Phe Ser Gln Leu Gly Ser Leu Gln Ala Leu Asp Leu
145 390          395          400          405
147 agt tgg aat gcc atc cgt gcc atc cac cct gag gct ttc tca acc ctt 1484
148 Ser Trp Asn Ala Ile Arg Ala Ile His Pro Glu Ala Phe Ser Thr Leu
149          410          415          420
151 cga tcc ttg gtt aag ctg gac ctg act gac aac cag ctg acc aca ctg 1532
152 Arg Ser Leu Val Lys Leu Asp Leu Thr Asp Asn Gln Leu Thr Thr Leu
153          425          430          435
155 ccc ctg gct ggg ctg gga ggc ctg atg cac ctg aag ctc aaa ggg aac 1580
156 Pro Leu Ala Gly Leu Gly Gly Leu Met His Leu Lys Leu Lys Gly Asn
157          440          445          450
159 ttg gcc ctg tct cag gcc ttc tcc aag gac agt ttc cca aaa ctg agg 1628
160 Leu Ala Leu Ser Gln Ala Phe Ser Lys Asp Ser Phe Pro Lys Leu Arg
161          455          460          465
163 atc ctg gag gtg ccc tac gcc tac cag tgc tgt gcc tac ggc atc tgt 1676
164 Ile Leu Glu Val Pro Tyr Ala Tyr Gln Cys Cys Ala Tyr Gly Ile Cys
165 470          475          480          485
167 gcc agc ttc ttc aag acc tct ggg cag tgg cag gcc gag gac ttt cat 1724
168 Ala Ser Phe Phe Lys Thr Ser Gly Gln Trp Gln Ala Glu Asp Phe His
169          490          495          500
171 cca gaa gaa gag gag gca cca aag agg ccc ctg ggt ctc ctt gct gga 1772
172 Pro Glu Glu Glu Glu Ala Pro Lys Arg Pro Leu Gly Leu Leu Ala Gly
173          505          510          515
175 caa gct gag aac cac tat gac cta gac ctg gat gag ctc cag atg ggg 1820
176 Gln Ala Glu Asn His Tyr Asp Leu Asp Leu Asp Glu Leu Gln Met Gly
177          520          525          530
179 aca gag gac tca aag cca aac ccc agt gtc cag tgc agc cct gtt cca 1868
180 Thr Glu Asp Ser Lys Pro Asn Pro Ser Val Gln Cys Ser Pro Val Pro
181          535          540          545
183 ggc ccc ttc aag ccc tgc gag cac ctc ttt gag agc tgg ggc atc cgc 1916
184 Gly Pro Phe Lys Pro Cys Glu His Leu Phe Glu Ser Trp Gly Ile Arg
185 550          555          560          565
187 ctt gct gtg tgg gcc atc gtg ctg ctc tcc gta ctc tgt aac ggg ctg 1964
188 Leu Ala Val Trp Ala Ile Val Leu Ser Val Leu Cys Asn Gly Leu
189          570          575          580
191 gtg ctg ctg aca gtc ttt gcc agc gga ccc agc ccg ctg tcc ccc gtc 2012
192 Val Leu Leu Thr Val Phe Ala Ser Gly Pro Ser Pro Leu Ser Pro Val
193          585          590          595
195 aag ctt gtg gtg ggt gcg atg gca ggc gcc aac gcc ctg acg ggc att 2060
196 Lys Leu Val Val Gly Ala Met Ala Gly Ala Asn Ala Leu Thr Gly Ile
197          600          605          610
199 tcc tgt ggt ctc ctg gcc tct gtg gac gcc ttg acc tat ggt cag ttc 2108
200 Ser Cys Gly Leu Leu Ala Ser Val Asp Ala Leu Thr Tyr Gly Gln Phe

```

RAW SEQUENCE LISTING  
 PATENT APPLICATION: US/09/851,595

DATE: 05/21/2001  
 TIME: 10:17:13

Input Set : A:\seqlist.txt  
 Output Set: N:\CRF3\05212001\I851595.raw

201	615	620	625	2156
203	gct gag tat gga gcc cgc tgg gag agc ggt ctg ggc tgc cag gct acg			
204	Ala Glu Tyr Gly Ala Arg Trp Glu Ser Gly Leu Gly Cys Gln Ala Thr			
205	630	635	640	645
207	ggc ttc ctg gct gtc ctg ggt tca gag gcg tcg gtg ctg ctg ctc aca			2204
208	Gly Phe Leu Ala Val Leu Gly Ser Glu Ala Ser Val Leu Leu Leu Thr			
209	650	655	660	
211	ctg gcg gcc gtg cag tgc agc atc tct gtg acc tgc gtc cga gcc tac			2252
212	Leu Ala Ala Val Gln Cys Ser Ile Ser Val Thr Cys Val Arg Ala Tyr			
213	665	670	675	
215	ggg aag gcg ccg tcg cct ggc agc gtc cgc gca ggc gca ctg gga tgc			2300
216	Gly Lys Ala Pro Ser Pro Gly Ser Val Arg Ala Gly Ala Leu Gly Cys			
217	680	685	690	
219	ctg gcg ctg gcc ggg ctg gcc gca gca ctg ccg ctg gcc tcg gtg gga			2348
220	Leu Ala Leu Ala Gly Leu Ala Ala Leu Pro Leu Ala Ser Val Gly			
221	695	700	705	
223	gag tat ggc gcc tcc cca ctc tgc ctg ccc tac gcc cca ccc gag ggc			2396
224	Glu Tyr Gly Ala Ser Pro Leu Cys Leu Pro Tyr Ala Pro Pro Glu Gly			
225	710	715	720	725
227	cgg ccg gcc gcc ctg ggc ttc gct gta gcc ctg gtg atg atg aac tcg			2444
228	Arg Pro Ala Ala Leu Gly Phe Ala Val Ala Leu Val Met Met Asn Ser			
229	730	735	740	
231	ctc tgc ttc ctg gtg gtc gcc ggc gcc tac atc aag ctc tac tgt gac			2492
232	Leu Cys Phe Leu Val Val Ala Gly Ala Tyr Ile Lys Leu Tyr Cys Asp			
233	745	750	755	
235	ctg cca ccg ggt gac ttt gag gcc gtg tgg gac tgc gcc atg gtg cgc			2540
236	Leu Pro Arg Gly Asp Phe Glu Ala Val Trp Asp Cys Ala Met Val Arg			
237	760	765	770	
239	cac gtg gcc tgg ctc atc ttt gca gat ggc ctc ctc tac tgc ccc gtg			2588
240	His Val Ala Trp Leu Ile Phe Ala Asp Gly Leu Leu Tyr Cys Pro Val			
241	775	780	785	
243	gcc ttc ctc agc ttt gcc tcc atg ctg ggc ctc ttc cct gtc acc ccc			2636
244	Ala Phe Leu Ser Phe Ala Ser Met Leu Gly Leu Phe Pro Val Thr Pro			
245	790	795	800	805
247	gag gct gtc aag tca gtc ctt ctg gtg gtg ctg cct ctg cct gcc tgc			2684
248	Glu Ala Val Lys Ser Val Leu Leu Val Val Leu Pro Leu Pro Ala Cys			
249	810	815	820	
251	ctc aac cca ctg ctc tac ctg ctc ttc aac cct cac ttc cgg gat gac			2732
252	Leu Asn Pro Leu Leu Tyr Leu Leu Phe Asn Pro His Phe Arg Asp Asp			
253	825	830	835	
255	ctt cgg cgg ctc tgg cca agc cct cgg tcc cca ggg ccc cta gcc tac			2780
256	Leu Arg Arg Leu Trp Pro Ser Pro Arg Ser Pro Gly Pro Leu Ala Tyr			
257	840	845	850	
259	gct gca gcc ggt gag ctg gag aag agc tcc tgc gac tcc acc caa gcg			2828
260	Ala Ala Ala Gly Glu Leu Glu Lys Ser Ser Cys Asp Ser Thr Gln Ala			
261	855	860	865	
263	ctg gtg gct ttc tca gat gtg gat ctt att ctg gaa gct tct gag gct			2876
264	Leu Val Ala Phe Ser Asp Val Asp Leu Ile Leu Glu Ala Ser Glu Ala			
265	870	875	880	885

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/851,595

DATE: 05/21/2001  
TIME: 10:17:13

Input Set : A:\seqlist.txt  
Output Set: N:\CRF3\05212001\I851595.raw

```

267 ggg cag cct cct ggg cta gag acc tat ggc ttc cct tca gtg acc ctc 2924
268 Gly Gln Pro Pro Gly Leu Glu Thr Tyr Gly Phe Pro Ser Val Thr Leu
269 890 895 900
271 atc tcc cga cat cag ccg ggg gcc acc agg ctg gag gga aac cat ttt 2972
272 Ile Ser Arg His Gln Pro Gly Ala Thr Arg Leu Glu Gly Asn His Phe
273 905 910 915
275 ata gag tct gat gga acc aag ttt ggg aac cca caa cct ccc atg aag 3020
276 Ile Glu Ser Asp Gly Thr Lys Phe Gly Asn Pro Gln Pro Pro Met Lys
277 920 925 930
279 gga gaa ctg ctg aag gca gag gga gcc act ttg gca ggc tgt ggc 3068
280 Gly Glu Leu Leu Lys Ala Glu Gly Ala Thr Leu Ala Gly Cys Gly
281 935 940 945
283 tct tcc gtg ggt gga gcc ctc tgg ccc tct ggc tct ctc ttt gcc tct 3116
284 Ser Ser Val Gly Gly Ala Leu Trp Pro Ser Gly Ser Leu Phe Ala Ser
285 950 955 960 965
288 His Leu
290 aaaagaaaga caactccaac tccatagcaa gatggccaac acctctgact ccattgttct 3232
292 ctctccacga ccctaacca atgagtgtt ccaagtcttg ctttgtcttg gccttcagct 3292
294 tcaactttcac cctgggcctt ctctgtccaa tccaatactt ctgacagagg cctgggaaat 3352
296 ttgcatagga gaaaggagaa aagcaaaaga cagtgaaggt tattgggccc tgacagagcc 3412
298 atgatcagta agtgcagagt gatggggagg tctcacagag catgacactg gaagacaact 3472
300 accaaagaca ttggagagtc tccctgtga catatagaat ataaaatgtg ttctgcgttc 3532
W--> 302 cattaatctt gacctatgct gngccaaagt gcttctgtt aaaatacact ttggaagaca 3592
304 ttgaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaagggcg gccgc 3637
307 <210> SEQ ID NO: 2
308 <211> LENGTH: 967
309 <212> TYPE: PRT
310 <213> ORGANISM: Mus musculus
312 <400> SEQUENCE: 2
313 Met His Ser Pro Pro Gly Leu Leu Ala Leu Trp Leu Cys Ala Val Leu
314 1 5 10 15
316 Cys Ala Ser Ala Arg Gly Gly Ser Asp Pro Gln Pro Gly Pro Gly Arg
317 20 25 30
319 Pro Ala Cys Pro Ala Pro Cys His Cys Gln Glu Asp Gly Ile Met Leu
320 35 40 45
322 Ser Ala Asp Cys Ser Glu Leu Gly Leu Ser Val Val Pro Ala Asp Leu
323 50 55 60
325 Asp Pro Leu Thr Ala Tyr Leu Asp Leu Ser Met Asn Asn Leu Thr Glu
326 65 70 75 80
328 Leu Gln Pro Gly Leu Phe His His Leu Arg Phe Leu Glu Glu Leu Arg
329 85 90 95
331 Leu Ser Gly Asn His Leu Ser His Ile Pro Gly Gln Ala Phe Ser Gly
332 100 105 110
334 Leu His Ser Leu Lys Ile Leu Met Leu Gln Ser Asn Gln Leu Arg Gly
335 115 120 125
337 Ile Pro Ala Glu Ala Leu Trp Glu Leu Pro Ser Leu Gln Ser Leu Arg
338 130 135 140
340 Leu Asp Ala Asn Leu Ile Ser Leu Val Pro Glu Arg Ser Phe Glu Gly

```

**Please Note:**

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/851,595

DATE: 05/21/2001

TIME: 10:17:14

Input Set : A:\seqlist.txt

Output Set: N:\CRF3\05212001\I851595.raw

L:9 M:270 C: Current Application Number differs, Replaced Application Number  
L:10 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:302 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1  
L:779 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:780 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4  
L:968 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5  
L:1107 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6  
L:1108 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6